



THE CITY OF SAN DIEGO

## SPECIFICATIONS FOR

# Wood and Masonry Fences

CITY OF SAN DIEGO DEVELOPMENT SERVICES  
1222 FIRST AVENUE, MS 301, SAN DIEGO, CA 92101  
Call (619) 446-5300 for appointments and (619) 446-5000 for information.

INFORMATION  
BULLETIN  
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Construction of masonry or wood fences six feet or less in height and not supporting surcharge does not require a permit from the City of San Diego Development Services Department. However, it is regulated by the Uniform Building Code as amended by the City of San Diego. This information bulletin outlines the city's requirements. Information Bulletin 220 contains information on how to obtain retaining wall permits. Information Bulletins 221 and 222 cover retaining walls with level and sloping backfill.

Fence heights are also regulated by the zoning laws of the city. For specific information about the zoning regulations for your fence on your lot, call Information and Application Services Division at (619) 446-5000.

## I. FENCE HEIGHT

Fence height is measured from the top of the footing to the top of the wall.

## II. MASONRY FENCE SPECIFICATIONS

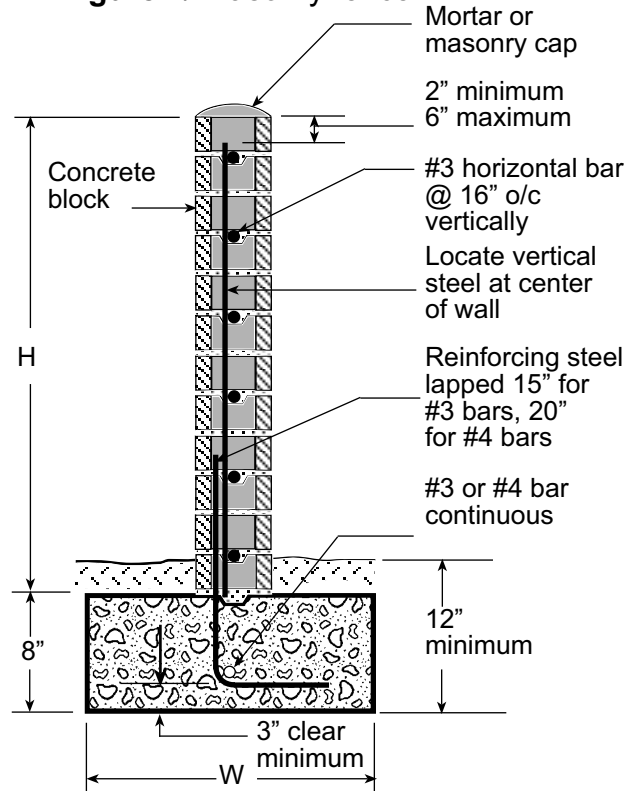
Masonry fences may be constructed using the specifications listed below.

A. Use the following mix requirements when constructing a masonry fence. *Note that the use of plastic cement is not permitted in masonry fences located in Seismic Zone No. 3 or 4.*

1. Concrete mix for footings must have a compressive strength of  $f'_c = 2,000$  psi minimum, or the following proportions by volume:
  - 1 part Portland cement
  - 2 1/2 parts sand
  - 3 1/2 parts 3/4-inch maximum diameter gravel
  - 7 gallons water maximum per sack of cement
2. Mortar mix must have a compressive strength equal to 1,800 psi minimum. One possible mix contains the following proportions by volume:
  - 1 part Portland cement
  - 3 1/2 parts sand
  - 1/4 part hydrated lime or lime putty
3. Grout must have a compressive strength equal to 2,000 psi minimum. One possible mix contains the following proportions by volume:
  - 1 part Portland cement
  - 3 parts sand
  - 2 parts pea gravel (3/8-inch aggregate)

Add water until pouring consistency is achieved without segregation of the grout constituents.

**Figure 1/ Masonry fence**



Rod or vibrate immediately. Rerod or revibrate grout about 10 minutes after placement to insure adequate consolidation.

Stop grout 2 inches from top of masonry units when grouting of second lift is to be continued at another time.

B. All blocks must be Type "N" grouted wherever reinforcing occurs.

C. Table A contains reinforcing steel requirements for various masonry walls. Reinforcing steel must be deformed and comply with ASTM specifications A615-85, Grade 40. When the use of one continuous bar is not possible, a lap or splice of 40 bar diameters is required.

D. A mortar key must be formed by embedding a flat 2x4 flush with and at the top of the freshly placed footing to insure proper bonding between the footing and the first course of block. It should be removed after the concrete has started to harden (about 1 hour).

A mortar key may be omitted if the first course of block is set into the fresh concrete when the footing is placed and a good bond is obtained.

E. Table A also contains dimensional requirements for masonry wall footings. All footings must extend at least 12 inches into undisturbed natural soil or compacted fill which has been compacted to at least 90 percent density. Soil should be dampened prior to placing concrete in footings.

A preliminary soil report, compiled by a licensed civil engineer, may be required.

### III. WOOD/CHAIN LINK FENCES

Fence specifications are shown in Table B. Details for typical wood panel lock fences, board fences, and chain link fences are shown in Figures 2, 3, and 4.

A. Wood posts must be treated or must be No. 2 foundation-grade redwood, pressure-treated Douglas fir-larch No. 2 or better.

B. Preservative must be applied to the ends of wood posts buried in the ground.

C. Set posts/pipes in 12-inch-diameter concrete footings extending at least 24 inches into undisturbed natural ground or properly compacted fill. Footings must be placed over 3 inches of loose gravel as shown below. Wood posts must extend through concrete footings to gravel below.

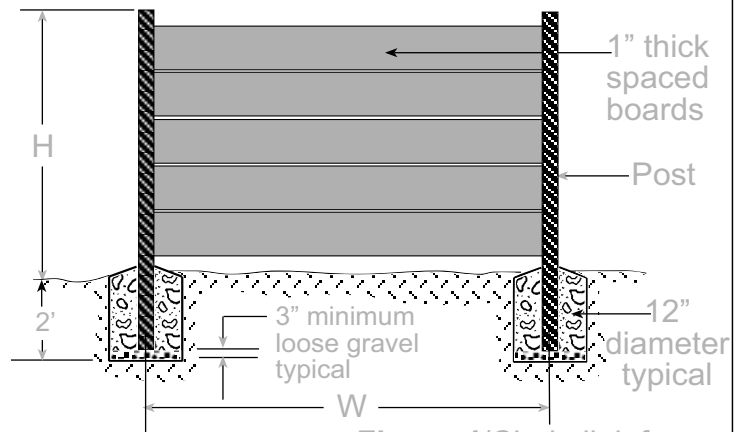
**Table A/Requirements for masonry walls**

Wall height, H (feet)	Material	Footing width, W (inches)	Reinforcing steel
4	6" concrete block	12	#3 @24" o.c.
	8" concrete block	12	#3 @24" o.c.
	8" brick	12	#3 @24" o.c.
5	6" concrete block	18	#3 @24" o.c.
	8" concrete block	18	#4 @24" o.c.
	8" brick	18	#4 @24" o.c.
6	8" concrete block	24	#4 @24" o.c.
	8" brick	24	#4 @24" o.c.

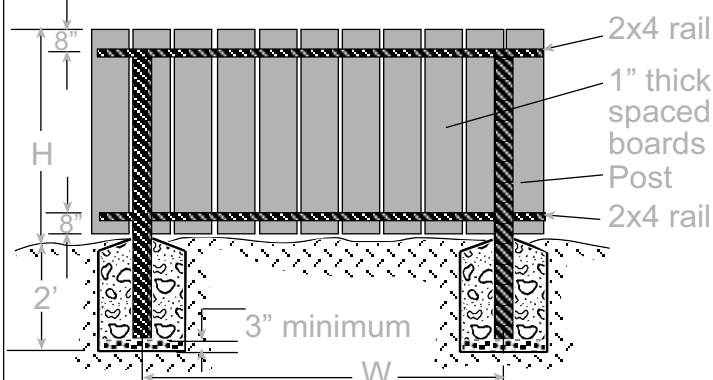
**Table B/Fence specifications**

Height, H (feet)	Post size (inches)	Section width, W (feet)
4	4 x 4	6
5	4 x 4	6
6	4 x 4	6
4	4 x 6	8
5	4 x 6	8
6	4 x 6	8

**Figure 2/Wood Panel lock fence**



**Figure 3/Board fence**



**Figure 4/Chain link fence**

